

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A system comprising:

a first volume image including a first software wherein the first volume image includes common file data, and first file data;

a second volume image including a second software wherein the second volume image includes the common file data and second file data which is different from the first file data;

a server;

a first destination device;

a second destination device;

a shared network linking the server to the first and second destination devices;

wherein the server is adapted to simultaneously transmit the common data to the first and second destination devices via the shared network;

wherein the server simultaneously transmits the first file data to the first and second destination devices via the shared network and wherein the server simultaneously transmits the second file data to the first and second destination devices via the shared network;

wherein the server simultaneously transmits the first volume image including the first software and the second volume image including the second software in a single image stream from which the first volume image and the second volume image can each be re-created by imaging;

wherein the server simultaneously transmits first descriptive data to the first and second destination devices via the shared network, said first descriptive data identifying the common data and first file data of the first volume image;

wherein the server simultaneously transmits second descriptive data to the first and second destination devices via the shared network, said second descriptive data identifying the common data and second file data of the second volume image; and

wherein the first destination device ~~selectively receives~~ stores only the common data and the first file data ~~via the shared network as defined by~~ in response to the first descriptive data ~~transmitted to the first destination device received~~ from the server while simultaneously ~~while~~

the second destination device ~~selectively receives~~ stores only the common data and the second file data ~~via the shared network as defined by~~ in response to the second descriptive data ~~transmitted to the second destination device~~ received from the server;

~~whereby~~ wherein the server simultaneously, directly multicasts the common data, the first file data and the second file data to both the first and second destination devices and wherein the first destination device re-creates the first volume image from the common file data and the first file data simultaneously while the second destination device re-creates the second volume image from the common data and the second file data.

2. (canceled)

3. (canceled)

4. (canceled)

5. (canceled)

6. (previously presented) The system of claim 1 wherein the server directly transmits the first descriptive data to the first destination device and the server directly transmits the second descriptive data to the second destination device.

7. (previously presented) The system of claim 1 wherein the server maintains a list of destination devices and the common data of the images to be transmitted to destination devices on the list and multicasts common data and file data corresponding to the images to be transmitted to destination device on the list.

8. (previously presented) The system of claim 1 wherein the server multicasts the common data, the first file data and the second file data to the first and second destination devices including a unique identifier for the data currently being transmitted.

9. (original) The system of claim 8 wherein the first destination device receives the common data, the first file data and the second file data and stores only the common data and first file data as indicated by the unique identifier.
10. (original) The system of claim 7 wherein the first destination device provides a first notification to the server when the first destination device has received the common data and the file data corresponding to the first descriptive data.
11. (currently amended) The system of claim 10 wherein the server, in response to the first notification, removes the first destination device from the list and discontinues multicasting the file data of the first volume image, unless another destination device has requested the first volume image.
12. (currently amended) The system of claim 10 wherein the server, in response to the second notification, removes the second destination device from the list and discontinues multicasting the common data of the second volume image, unless another destination device has requested an volume image which includes the common data.
13. (currently amended) The system of claim 10 wherein the first destination device reconstructs the volume image corresponding to the first descriptive data.
14. (original) The system of claim 1 wherein the server is adapted to transmit a plurality of multicast streams including common and/or descriptive data and wherein the servers selects a number of multicast streams as a function of destination device restore time and as a function of total bandwidth of the streams being transmitted.
15. (original) The system of claim 1 wherein the server is configures to sequentially transmit the file data in a sequence defined by a priority.

16. (currently amended) The system of claim 1 for transmitting a third volume image including a third software, wherein the first and third volume images include common file data, wherein the third volume image includes third file data which is different from the first file data and which is different from the second file data, said system further comprising:

a third destination device;

said shared network linking the server to the third destination device;

wherein the server is adapted to simultaneously transmit the common data to the first, second and third destination devices via the shared network; and

wherein the server is adapted to transmit the third file data to the third destination device via the shared network.

17. (currently amended) A method for transmitting a first volume image including a first software from an image server store to a first destination computing device linked to the image server store through a shared network and for transmitting a second volume image including a second software from the image server store to a second destination computing device linked to the image server store through a shared network, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, said method comprising:

simultaneously transmitting the common data to the first and second destination computing devices;

simultaneously transmitting the first file data to the first destination computing device and transmitting the second file data to the second destination computing device;

simultaneously transmitting the first volume image including the first software and the second volume image including the second software in a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging;

simultaneously transmitting to the first destination device first descriptive data of the first volume image identifying the common data and first file data and transmitting to the second

destination ~~second~~ computing device second descriptive data of the second volume image identifying the common data and second file data;

~~receiving~~ storing by the first destination computing device the common data and the first file data ~~as defined by in response to~~ the first descriptive data ~~transmitted to the first destination device~~ received while simultaneously ~~receiving~~ storing by the second destination computing device the common data and the second file data ~~as defined by in response to~~ the second descriptive data ~~transmitted to the second destination device~~ received; and

directly transmitting the first descriptive data to the first destination computing device while simultaneously directly transmitting the second descriptive data to the second destination computing device.

18. (canceled)

19. (canceled)

20. (canceled)

21. (canceled)

22. (currently amended) The method of claim ~~19~~ 17 further comprising multicasting the common data, the first file data and the second file data simultaneously to the first and second destination devices.

23. (currently amended) The method of claim ~~19~~ 17 further comprising maintaining a list of destination devices and volume images to be transmitted to destination devices on the list and multicasting common data and file data corresponding to the volume images to be transmitted to destination device on the list.

24. (currently amended) The method of claim ~~19~~ 17 further comprising multicasting the common data, the first file data and the second file data to the first and second destination devices including a unique identifier for the data currently being transmitted.
25. (original) The method of claim 24 wherein the first destination device receives the common data, the first file data and the second file data and stores only the common data and first file data as indicated by the unique identifier.
26. (original) The method of claim 23 wherein the first destination device provides a first notification to the server when the first destination device has received the common data and the file data corresponding to the first descriptive data.
27. (currently amended) The method of claim 26 wherein, in response to the first notification, removing the first destination device from the list and discontinuing multicasting the file data of the first volume image, unless another destination device has requested the first volume image.
28. (currently amended) The method of claim 26 wherein, in response to the second notification, removing the second destination device from the list and discontinuing multicasting the common data of the second volume image, unless another destination device has requested an volume image which includes the common data.
29. (currently amended) The method of claim 26 wherein the first destination device reconstructs the volume image corresponding to the first descriptive data.
30. (original) The method of claim 17 transmitting a plurality of multicast streams including common and/or descriptive data and selecting a number of multicast streams as a function of destination device restore time and as a function of total bandwidth of the streams being transmitted.

31. (original) The method of claim 17 further comprising sequentially transmitting the file data in a sequence defined by a priority.

32. (currently amended) The method of claim 17 for transmitting a third volume image including a third software, wherein the first and third images include common file data, wherein the third image includes third file data which is different from the first file data and which is different from the second file data, said method further comprising:

simultaneously transmitting the common data to the first, second and third destination devices via the shared network; and

transmitting the third file data to the third destination device via the shared network.

33. (currently amended) A client side system for receiving a first transmitted volume image including a first software from a server, the server also transmitting a second volume image including a second software, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, wherein the server transmits the first volume image including the first software and the second volume image including the second software in a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging, wherein the server is adapted to transmit via the shared network to the first destination device descriptive data of the first volume image identifying the common data and first file data, wherein the server is adapted to transmit via the shared network to the first and second destination devices the common data and file data including the first file data and the second file data; said client side system comprising:

a destination computing device including:

a link to the server;

software for receiving the descriptive data of the first volume image; and

software for receiving the volume image stream; and

software responsive to the received descriptive data of the first volume image for storing the common file data and the first file data;

wherein the server simultaneously directly transmits the first descriptive data to the first destination device and the server directly transmits the second descriptive data to the second destination device and wherein the server multicasts the common data, the first file data and the second file data simultaneously to the first and second destination devices; ~~and~~

wherein the first destination device ~~receives~~ stores only the common data and the first file data ~~via the shared network as defined by~~ in response to the first descriptive data ~~transmitted to the first destination device received~~ from the server while simultaneously ~~while~~ the second destination device ~~receives~~ stores only the common data and the second file data ~~via the shared network as defined by~~ in response to the second descriptive data ~~transmitted to the second destination device received~~ from the server; and

wherein the first destination device re-creates the first volume image from the common file data and the first file data simultaneously while the second destination device re-creates the second volume image from the common data and the second file data.

34. (canceled)

35. (canceled)

36. (canceled)

37. (currently amended) The client side system of claim 33 for transmitting a third volume image including a third software, wherein the first and third volume images include common file data, wherein the third volume image includes third file data which is different from the first file data and which is different from the second file data, said system further comprising:

a third destination device;

said shared network linking the server to the third destination device;

wherein the server is adapted to simultaneously transmit the common data to the first, second and third destination devices via the shared network; and

wherein the server is adapted to transmit the third file data to the third destination device via the shared network.

38. (currently amended) A client side system for use on a destination device for receiving a first transmitted volume image including a first software from a server, the server also transmitting a second image including a second software, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, wherein the server transmits the first volume image including the first software and the second volume image including the second software in a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging, wherein the server is adapted to transmit via the shared network to the first destination device descriptive data of the first volume image identifying the common data and first file data, wherein the server is adapted to transmit via the shared network to the first and second destination devices the common data and file data including the first file data and the second file data; said client side system comprising:

a destination computing device including:

software for receiving the descriptive data of the first volume image;

software for receiving the volume image stream; and

software responsive to the received descriptive data of the first volume image for storing the common file data and the first file data.

39. (currently amended) A client side method in which a destination computing device receives a first transmitted volume image including a first software from an image server store, wherein the image server store also transmits a second volume image including a second software, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, wherein the image server store transmits the first volume image including the first software and the second volume image including the second software in a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging, wherein the image server store is adapted to transmit via the shared network to the first destination computing device descriptive data of the first volume

image identifying the common data and first file data, wherein the image server store is adapted to transmit via the shared network to the first and second destination computing devices the common data and file data including the first file data and the second file data; said client side method comprising:

receiving the descriptive data of the first volume image; and

receiving the volume image stream; and

storing the common file data and the first file data in response to the received descriptive data of the first volume image;

wherein the server simultaneously directly transmits the first descriptive data to the first destination computing device and the server directly transmits the second descriptive data to the second destination computing device and wherein the server multicasts the common data, the first file data and the second file data simultaneously to the first and second destination computing devices; ~~and~~

wherein the first destination computing device ~~receives~~ stores only the common data and the first file data ~~via the shared network as defined by~~ in response to the first descriptive data ~~transmitted to the first destination device received from the server while simultaneously while~~ the second destination computing device ~~receives~~ stores only the common data and the second file data ~~via the shared network as defined by~~ in response to the second descriptive data ~~transmitted to the second destination device received from the server;~~ and

wherein the first destination computing device re-creates the first volume image from the common file data and the first file data simultaneously while the second destination computing device re-creates the second volume image from the common data and the second file data.

40. (currently amended) A server side system for transmitting a first volume image including a first software and for transmitting a second volume image including a second software, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, said system comprising:

a server linked to first and second destination devices via a shared network;

wherein the server is adapted to simultaneously transmit the common data to the first and second destination devices via the shared network;

wherein the server is adapted to transmit the first file data to the first destination device via the shared network and the second file data to the second destination device via the shared network.

said server simultaneously transmitting the first volume image including the first software and the second volume image including the second software in a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging;

wherein the server simultaneously transmits first descriptive data to the first destination device via the shared network, said first descriptive data identifying the common data and first file data of the first volume image and the server transmits second descriptive data to the second destination device via the shared network, said second descriptive data identifying the common data and second file data of the second volume image;

wherein the server simultaneously directly transmits the first descriptive data to the first destination device and the server directly transmits the second descriptive data to the second destination device; and

wherein the server simultaneously multicasts the common data, the first file data and the second file data simultaneously to the first and second destination devices.

41. (canceled)

42. (canceled)

43. (canceled)

44. (currently amended) The server side system of claim 40 wherein the server maintains a list of destination devices and volume images to be transmitted to destination devices on the list and multicasts common data and file data corresponding to the volume images to be transmitted to destination device on the list.

45. (original) The server side system of claim 40 wherein the server is adapted to transmit a plurality of multicast streams including common and/or descriptive data and wherein the servers selects a number of multicast streams as a function of destination device restore time and as a function of total bandwidth of the streams being transmitted.

46. (original) The server side system of claim 40 wherein the server is configures to sequentially transmit the file data in a sequence defined by a priority.

47. (currently amended) The server side system of claim 40 for transmitting a third volume image including a third software to a third destination device, wherein the first and third volume images include common file data, wherein the third volume image includes third file data which is different from the first file data and which is different from the second file data, said system further comprising:

said shared network linking the server to the third destination device;

wherein the server is adapted to simultaneously transmit the common data to the first, second and third destination devices via the shared network; and

wherein the server is adapted to transmit the third file data to the third destination device via the shared network.

48. (currently amended) A server side method for transmitting a first volume image including a first software from an image server store and for transmitting a second volume image including a second software from an image server store, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, said method comprising:

simultaneously transmitting the common data to the first and second destination computing devices via the shared network; and

simultaneously transmitting the first file data to the first destination computing device via the shared network and transmitting the second file data to the second destination computing device via the shared network;

simultaneously transmitting the first volume image including the first software and the second volume image including the second software in a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging

simultaneously transmitting first descriptive data to the first destination computing device via the shared network, said first descriptive data identifying the common data and first file data of the first volume image and transmitting second descriptive data to the second destination computing device via the shared network, said second descriptive data identifying the common data and second file data of the second volume image;

directly simultaneously transmitting the first descriptive data to the first destination computing device and directly transmitting the second descriptive data to the second destination computing device; and

multicasting the common data, the first file data and the second file data simultaneously to the first and second destination computing devices.

49. (canceled)

50. (canceled)

51. (canceled)

52. (currently amended) The server side method of claim ~~50~~ 48 further comprising maintaining a list of destination devices and volume images to be transmitted to destination devices on the list and multicasting common data and file data corresponding to the volume images to be transmitted to destination device on the list.

53. (original) The server side method of claim 48 further comprising transmitting a plurality of multicast streams including common and/or descriptive data and wherein the servers selects a

number of multicast streams as a function of destination device restore time and as a function of total bandwidth of the streams being transmitted.

54. (original) The server side method of claim 48 further comprising sequentially transmitting the file data in a sequence defined by a priority.

55. (currently amended) The server side method of claim 48 for transmitting a third volume image including a third software to a third destination device, wherein the first and third volume images include common file data, wherein the third volume image includes third file data which is different from the first file data and which is different from the second file data, said method further comprising:

simultaneously transmitting the common data to the first, second and third destination devices via the shared network; and

transmitting the third file data to the third destination device via the shared network.

56. (currently amended) A data transmission method of transmitting a first volume image including a first software from an image server store and a second volume image including a second software from an image server store into a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging onto a destination computing device linked to the image server store through a shared network, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, said method comprising:

transmitting descriptive data of the first volume image identifying the common data and first file data;

transmitting descriptive data of the second volume image identifying the common data and second file data; and

transmitting the common data and file data including the first file data and the second file data;

wherein the transmitting of the descriptive data is on a different channel ~~that~~ than a channel on which the transmitting of the common data and the file data are transmitted;

wherein the transmitting of the common data and the file data comprising sequentially transmitting the common data, the first file data and the second file data;

transmitting the first volume image including the first software and the second volume image including the second software in a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging;

transmitting first descriptive data to the first destination computing device via the shared network, said first descriptive data identifying the common data and first file data of the first volume image; and

transmitting second descriptive data to the second destination computing device via the shared network, said second descriptive data identifying the common data and second file data of the second volume image;

directly transmitting the first descriptive data to the first destination computing device and directly transmitting the second descriptive data to the second destination computing device; and

multicasting the common data, the first file data and the second file data simultaneously to the first and second destination computing devices.

57. (canceled)

58. (canceled)

59. (canceled)

60. (canceled)

61. (canceled)

62. (previously presented) The data transmission method of claim 56 further comprising transmitting a plurality of multicast streams including common and/or descriptive data and selecting a number of multicast streams as a function of destination device restore time and as a function of total bandwidth of the streams being transmitted.

63. (currently amended) The data transmission method of claim ~~60~~ 56 further comprising sequentially transmitting the file data in a sequence defined by a priority.

64. (currently amended) The data transmission method of claim ~~60~~ 56 for transmitting a third image including a third software to a third destination device, wherein the first and third images include common file data, wherein the third image includes third file data which is different from the first file data and which is different from the second file data, said method further comprising:

- simultaneously transmitting the common data to the first, second and third destination devices via the shared network; and

- transmitting the third file data to the third destination device via the shared network.

65. (currently amended) A method comprising: transmitting a ~~A~~ modulated data signal having a data structure stored thereon including a first volume image including a first software from an image server store and including a second volume image including a second software from an image server store, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, said data structure comprising:

- a first field including the common data;

- a second field including first file data; and

- a third field including second file data.

- a fourth field including first descriptive data identifying the common data and first file data of the first volume image; and

- a fifth field including second descriptive data identifying the common data and second file data of the second volume image.

66. (currently amended) The data structure of claim 65 further comprising a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging.

67. (canceled)

68. (original) The data structure of claim 65 including a plurality of multicast streams including common and/or descriptive data and wherein the number of multicast streams as a function of destination device restore time and as a function of total bandwidth of the streams being transmitted.

69. (currently amended) A ~~tangible~~ computer readable storage medium storing instructions for use on a destination device for receiving a first transmitted volume image including a first software from a server, the server also simultaneously transmitting a second volume image including a second software, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, wherein the server simultaneously transmits the first volume image including the first software and the second volume image including the second software in a single volume image stream from which the first volume image and/or the second volume image can each be re-created by imaging, wherein the server is adapted to transmit via the shared network to the first destination device descriptive data of the first volume image identifying the common data and first file data, wherein the server is adapted to transmit via the shared network to the first and second destination devices the common data and file data including the first file data and the second file data; said medium including instructions comprising:

- software for receiving the descriptive data of the first volume image;

- software for receiving the volume image stream; and

- software responsive to the received descriptive data of the first volume image for storing the common file data and the first file data.

70. (currently amended) A ~~tangible~~ computer readable storage medium storing instructions for use on a server for simultaneously transmitting a first volume image including a first software and for transmitting a second volume image including a second software, wherein the first and second volume images include common file data, wherein the first volume image includes first file data and wherein the second volume image includes second file data which is different from the first file data, said medium including instructions comprising:

software for linking the server to first and second destination devices via a shared network;

software for adapting the server to simultaneously transmit the common data to the first and second destination devices via the shared network; and

software for adapting the server to simultaneously transmit the first file data to the first destination device via the shared network and the second file data to the second destination device via the shared network.